	Application No.	Applicant(s)
Notice of Allowability	09/768,458	KRAFT ET AL.
	Examiner	Art Unit	
	Michael Misiaszek	3625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *Applicant's Remarks 6/25/2007, Examiner's Amendment*.

2. ☒ The allowed claim(s) is/are *1-13 and 15-33*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some*   c) ☐ None   of the:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
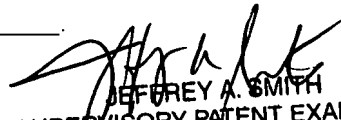
    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of

        Paper No./Mail Date _____ .

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application

6. ☒ Interview Summary (PTO-413), Paper No./Mail Date *20070911* .

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

JEFFREY A. SMITH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600

DETAILED ACTION

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes

and/or additions be unacceptable to applicant, an amendment may be filed as provided

by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be

submitted no later than the payment of the issue fee.

Authorization for this Examiner's Amendment was given by Ramraj

Soundararajan on 9/5/2007.

The application has been amended as follows:

In the Title

The title has been amended as follows:

<u>System and method for</u> enhancing sales for service providers utilizing an opportunistic

approach based on an unexpected change in schedule of services ~~(time, location)~~

In the Claims

See attached Examiner's Claim Amendment.

Reasons for Allowance

The following is an examiner's statement of reasons for allowance:

The present invention is directed towards systems and methods for enhancing sales including detecting and analyzing windows of opportunity defined by periods of inactivity created by an unexpected change in a scheduled service for service providers. Independent claims 1, 15, 20, and 33 teach the novel feature of "checking if said service providers benefit from said windows of opportunity." Based on this analysis (checking), the system and method matches the detected windows of opportunity with service providers for offering a new product or service separate from the scheduled service during the detected window of opportunity and notifies service providers of the detected window of opportunity.

The Examiner notes that the Applicant has acted as his own lexicographer and has applied particular definitions to the terms "event" and "window of opportunity". Page 9 of the present application defines "*events*" as "primarily changes in schedule of public/private service providers (trains, planes, buses, etc.) or other publicly known events (E.g. rock concerts, art performances, etc.). The application defines "*window of opportunity*" as "whenever there's an unexpected change in a schedule, and one or more people (dependents) might be affected from this change, such that they are blocked (e.g., have to wait, cannot engage in other activities)".

The following reference has been identified as the most relevant prior art to the claimed invention(s). The prior art generally relates to detecting unexpected changes in schedules or offering substitute/alternate products.

Stewart (US Patent # 6,759,960) discloses offering alternative products and services (rental car, hotel) based on an unexpected change in a scheduled service (delayed flight). Stewart does not anticipate nor fairly and reasonably teach checking if service providers benefit from a detected window of opportunity and providing notification to service providers regarding potential windows of opportunity.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

Blants (US Patent # 6,732,080) discloses a system and method of providing

personal calendar services including notification regarding unexpected

scheduling changes.

Matsui et al. (US 2002/0016723 A1) discloses an information broadcasting

method and device including detecting unscheduled delays and providing

alternate services.

Stiles et al. (US Patent # 6,842,737) discloses a travel information method and s

ystem including detecting deviations in travel schedules.

Thompson et al. (US Patent # 6,675,151) discloses a system and method for

performing substitute fulfillment information compilation and notification including

notification of unexpected events and providing replacement workers.

Yu et al. (US Patent # 6,314,361) discloses an optimization engine for flight

assignment, scheduling and routing of aircraft in response to irregular operations

including determining alternate routes in response to unexpected schedule
changes.

"St. Louis Airport Offers Extras to Entertain Captive Audience" by Ken Leiser
from Knight-Ridder/Tribune Buisness News discloses an airport lounge and
services offered for customer use, especially when waiting for a flight.

Any inquiry concerning this communication or earlier communications from the
examiner should be directed to Michael Misiaszek whose telephone number is (571)
272-6961. The examiner can normally be reached on 8:00 AM - 4:30 PM, Monday
through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Jeffrey A. Smith can be reached on (571) 272-6763. The fax phone number
for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michael A. Misiaszek
Patent Examiner
9/12/2007

JEFFREY A. SMITH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600

EXAMINER'S CLAIM AMENDMENT

The claims have been amended as follows:

1. (Currently Amended) A computer-based system for enhancing sales for service

providers by utilizing an opportunistic approach based on an unexpected change in a

schedule of service, said system comprising:

an event retriever component, said event retriever component generating an

event pair from a set of events which comprises a target value and an actual value

associated with said schedule of services;

an event observer component, said event observer component receiving said

event pairs from said event retriever component, calculating the difference between said

actual value and said target value, and based on one or more rules from a first set of

rules, identifying and notifying a window of opportunity detector component regarding

potential windows of opportunities opportunity, wherein each potential window of

opportunity defines a time period of customer inactivity;

a distribution channel analyzer component analyzing said detected windows of

opportunity by checking if said service providers benefit from said windows of

opportunity;

said window of opportunity detector <u>component</u>, which receives said potential

windows ~~opportunities~~ <u>opportunity</u>, detects, based on one or more rules from a set of

second rules, if a window of opportunity exists, and if so, matches<u>, based on the</u>

<u>analysis of said distribution channel analyzer component,</u> said detected windows of

~~opportunities~~ <u>opportunity</u> with service providers<u>, said service providers offering</u> ~~for the~~

~~purposes of providing~~ a new product or a service separate from said scheduled service

<u>during said window of opportunity</u>.

2. (Original) A system for enhancing sales for service providers by utilizing an

opportunistic approach based on an unexpected change in a schedule of service, as per

claim 1, wherein said event retriever further utilizes service provider schema information

stored in a service provider schema database to generate said event pairs.

3. (Original) A system for enhancing sales for service providers by utilizing an

opportunistic approach based on an unexpected change in a schedule of service, as per

claim 2, wherein said service provider schema is a document type definition (DTD).

4. (Original) A system for enhancing sales for service providers by utilizing an

opportunistic approach based on an unexpected change in a schedule of service, as per

claim 2, wherein said service provider schema is an XML schema.

5. (Original) A system for enhancing sales for service providers by utilizing an

opportunistic approach based on an unexpected change in a schedule of service, as per

claim 1, wherein said one or more rules from said set of first rules is a threshold rule,

and said potential windows of opportunities are identified based on comparing said

difference between said actual and target value against said threshold.

6. (Original) A system for enhancing sales for service providers by utilizing an

opportunistic approach based on an unexpected change in a schedule of service, as per

claim 1, wherein said one or more rules from said set of second rules are provided

externally by said service providers.

7. (Original) A system for enhancing sales for service providers by utilizing an

opportunistic approach based on an unexpected change in a schedule of service, as per

claim 1, wherein said system further accesses a subscription management service

wherein said events and schedules are defined for tracking.

8. (Currently Amended) A system for enhancing sales for service providers by utilizing

an opportunistic approach based on an unexpected change in a schedule of service, as

per claim 1, wherein said one more rules of said set of first rules and one or more rules

of a set of second rules are stored in a rule database.

9. (Original) A system for enhancing sales for service providers by utilizing an

opportunistic approach based on an unexpected change in a schedule of service, as per

claim 1, wherein said events are Internet Calendaring and Scheduling Core Object

Specification (iCalendar) events.

10. (Currently Amended) A system for enhancing sales for service providers by utilizing

an opportunistic approach based on an unexpected change in a schedule of service, as

per claim 1, wherein said event retriever further comprises:

an enhanced gatherer component, which dynamically receives information from

service providers over a network using simulated user interaction, and

a pattern matcher component, which extracts said event pair from said received

information based on matching the structure of said received information with that of a

stored schema of said service providers.

11. (Currently Amended) A system for enhancing sales for service providers by utilizing

an opportunistic approach based on an unexpected change in a schedule of service, as

per claim 10, wherein said enhanced gatherer component is a web crawler.

12. (Original) A system for enhancing sales for service providers by utilizing an

opportunistic approach based on an unexpected change in a schedule of service, as per

claim 10, wherein said network comprises any of the following: local area networks

(LANs), wide area networks (WANs), wireless networks, or the Internet.

13. (Original) A system for enhancing sales for service providers by utilizing an

opportunistic approach based on an unexpected change in a schedule of service, as per

claim 1, wherein said received event pairs are extracted from a markup language form.

14. (Cancelled)

15. (Currently Amended) A method for enhancing sales for service providers by utilizing

an opportunistic approach based on an unexpected change in a schedule of service,

~~wherein said step of detecting a window of opportunity comprises of~~ comprising:

electronically acquiring at least one service schedules of one or more service

providers;

detecting an unexpected change in said schedule;

checking if potential customers are blocked due to said unexpected change in

schedule, said blocking defining a period of inactivity;

detecting one or more potential windows of ~~opportunities~~ opportunity for sales to

said potential customers;

checking if service providers benefit from said detected potential windows of

~~opportunities~~ opportunity, and

providing notification regarding said potential windows of ~~opportunities~~

opportunity to service providers who benefit from such information, and

wherein said service providers offer a new product or service separate from said

scheduled service to said potential customer during said period of inactivity.

16. (Original) A method for enhancing sales for service providers by utilizing an

opportunistic approach based on an unexpected change in a schedule of service, as per

claim 15, wherein said step of detecting an unexpected change in said schedule further

comprises:

simulating user interaction via data gathering software to request data from

service providers via a network;

receiving information from said service providers via said network;

accessing a service provider schema database and reading schema regarding

said service providers;

matching said received information with said read schema associated with said

service providers, and

extracting data events, comprising actual and target data, based on said

matching step.

17. (Original) A method for enhancing sales for service providers by utilizing an

opportunistic approach based on an unexpected change in a schedule of service, as per

claim 16, wherein said network comprises any of the following: local area networks

(LANs), wide area networks (WANs), wireless networks, or the Internet.

18. (Currently Amended) A method for enhancing sales for service providers by utilizing

an opportunistic approach based on an unexpected change in a schedule of service, as

per claim 4516, wherein said data gathering software comprises data mining software.

19. (Original) A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 4516, wherein said extracted data events are iCalendar events.

20. (Currently Amended) A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, wherein said method comprising:

extracting standardized event data comprising an actual event value and a target value from said travel service provider via a network;

comparing, based on one or more rules from a set of first rules, the difference of said actual value and target value against a threshold value;

detecting a window of opportunity based on one or more rules from a set of second rules;

checking if service providers benefit from said detected window of opportunity;

distributing said window of opportunity information to said service providers for enhancing said service provider's sales, based on said checking; and

when if said detection of a window of opportunity occurs said sales providers providing a new product or a new service separate from said scheduled service, during said window of opportunity.

21. (Original) A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, as per claim 20, wherein said travel services comprises any of: airlines, trains, or buses.

22. (Currently Amended) A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, as per claim 20, wherein said event data is arrival or departure times and locations associated with said a specific airline.

23. (Currently Amended) A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, as per claim 20, wherein said one or more rules from said set of first rules is based on said difference of between actual and target values being above or below a predetermined threshold.

24. (Original) A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, as per claim 20, wherein said one or more rules from said set of second rules is based on rules provided by service providers.

25. (Original) A method for enhancing sales for service providers by utilizing an

opportunistic approach based on an unexpected change in a schedule of travel

services, as per claim 24, wherein said rules provided by service providers are stored in

a rules database.

26. (Original) A method for enhancing sales for service providers by utilizing an

opportunistic approach based on an unexpected change in a schedule of travel

services, as per claim 20, wherein said step of extracting standardized event data

further comprises:

accessing a webpage of said travel service provider's webpage over a network;

posting data regarding a specific travel provider in said webpage and querying

for information regarding schedule of said specific travel service;

receiving a web document from said travel service provider regarding said

schedule of said specific travel provider;

accessing a service provider schema database and reading a schema

associated with said travel service provider;

matching said received web document with said read schema and extracting

event data; and

standardizing said extracted event data.

27. (Original) A method for enhancing sales for service providers by utilizing an

opportunistic approach based on an unexpected change in a schedule of travel

services, as per claim 24, wherein said network comprises any of the following: local

area networks (LANs), wide area networks (WANs), wireless networks, or the Internet.

28. (Original) A method for enhancing sales for service providers by utilizing an

opportunistic approach based on an unexpected change in a schedule of travel

services, as per claim 26, wherein said step of posting data is accomplished using a

HTTP POST command.

29. (Original) A method for enhancing sales for service providers by utilizing an

opportunistic approach based on an unexpected change in a schedule of travel

services, as per claim 26, wherein said web document is of any of following formats:

HTML, SGML, or XML.

30. (Original) A method for enhancing sales for service providers by utilizing an

opportunistic approach based on an unexpected change in a schedule of travel

services, as per claim 26, wherein said read schema is an XML schema.

31. (Original) A method for enhancing sales for service providers by utilizing an

opportunistic approach based on an unexpected change in a schedule of travel

services, as per claim 26, wherein said read schema is a DTD.

32. (Original) A method for enhancing sales for service providers by utilizing an

opportunistic approach based on an unexpected change in a schedule of travel

services, as per claim 26, wherein said step of standardizing involves standardizing

based on iCalendar standard.

33. (Currently Amended) An article of manufacture comprising a computer user medium

having computer readable code embodied therein which provides for a e-commerce

method for enhancing sales to potential customers, said article comprising:

computer readable code electronically acquiring at least one service schedules of

one or more service providers;

computer readable code detecting an unexpected change in said schedule;

computer readable code checking if potential customers are blocked due to said

unexpected change in schedule, said blocking defining a period of inactivity;

computer readable code detecting one or more windows of opportunities for

sales to said potential customers;

computer readable code checking if service providers benefit from said detected

potential windows of opportunities, and

computer readable code providing notification regarding said potential windows

of opportunities to service providers who benefit from such information, wherein said

service providers offer a new product or service separate from said scheduled service to

said potential customers during said period of inactivity.